

1201 770-146 930-107 Cerp 1203 #12 11/5/96

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SOUDA et al

Serial No. 08/354,726

Filed: 6 December 1994

For: PYRIDINE DERIVATIVES HAVING ANTI-
ULCERATIVE ACTIVITY

Atty. Ref.: 423-27

Group: 1203

Examiner: Fan

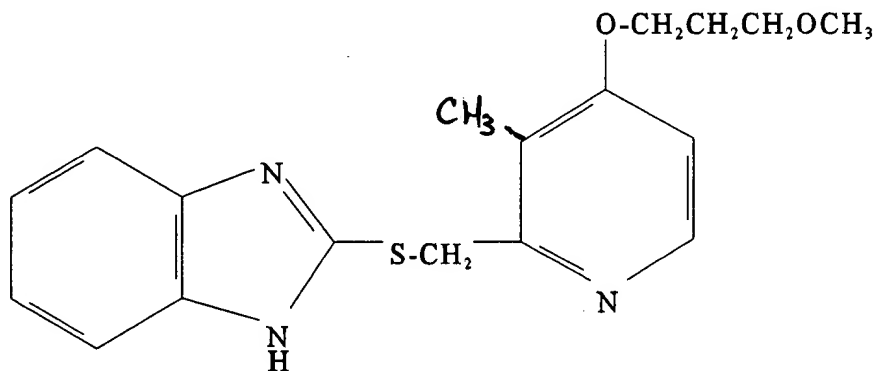
October 7, 1996

Honorable Commissioner of Patents
and Trademarks
Washington, DC 20231

PRELIMINARY REMARKS

Sir:

The claims of this application are directed to compounds having the structure



Claimed Compound

It is this compound that is converted to the corresponding sulfinyl compound that is the subject of great-grandparent application, now U.S. Patent No. 5,045,552. The only difference in structure is that the claim compounds are thios whereas the patent compounds sulfinyls. Indeed, it is the structure of the presently claimed compound that affords the desired sulfinyl compounds and is, in fact, the last step

in the synthesis process for making such compounds. Note that there is only one structural change in the compound made prior to the finished product. Thus, it is clear that the claim compounds serve as valuable and useful intermediates to produce the patented compounds. From the record of great grandparent application and the present application as well it is clear that the patented compounds have unexpected properties compared to related compounds in the prior art. These unexpected properties in part flow from the specific structure of the compounds of the present application and, in particular, the substituent on the four position of the pyridine ring which remains unchanged between the claimed compounds of the present application and the patented compounds.

The examiner's attention is directed to *In re Magerlein*, 202 U.S.P.Q. 473 at 478 (CCPA 1979) where the court stated:

"...evidence of an unexpectedly superior activity or property of an end product may, under appropriate circumstances, be considered in the determination of the nonobviousness of the claimed intermediate."

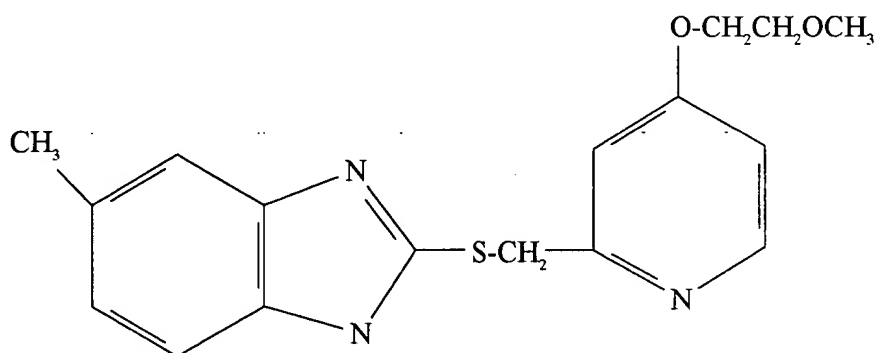
And thereafter concluded

"...we are persuaded that the capacity of an intermediate to contribute to an end product that feature which causes the end product to possess an activity or property that is unexpectedly superior to that of a prior art end product is a 'property' that inures to the benefit of the intermediate and that can be considered as part of the 'subject matter as a whole' in determining the nonobviousness of the intermediate."

Based on the above legal reasoning, it is respectfully submitted that the claims of the present application defined inventive subject matter -- the compounds

of the present application include features which cause the end product to possess an activity or property that is unexpectedly superior to that of the prior art end products. This has been demonstrated by the issuance of U.S. Patent No. 5,045,552 and as explained above.

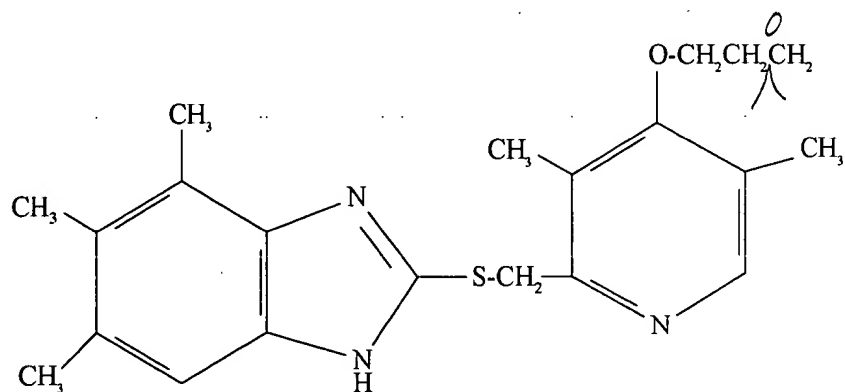
A compound of EP '314 considered by the examiner as representative of that disclosure is as follows:



EP 074,341 Hassle

In addition to a methyl group in the five position of the benzimidazol ring, the substituent at the four position of the pyridine ring is methoxyethoxy, an issue directly pertinent to and dealt with during the examination of the application that matured in the U.S. Patent No. 5,045,552.

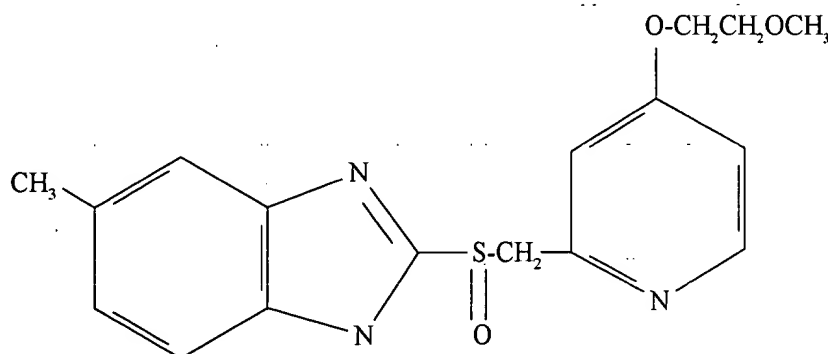
Also cited against claims 18 and 19 is U.S. Patent No. 4,508,905 to Jurggren et al, the compound of particular interest having the following structure:



GB 2,134,523 Hassle

Note that the linking group is a sulfinyl whereas the substituent on the four position of the pyridine ring is again methoxyethoxy, thus, Jurggren's compounds do not possess the relevant structure to lead to the patent compounds as do the compounds of the present application.

Similarly, British patent specification 2,134,523 to Hassle was cited and applied to claims 18 and 19 of the present application. The examiner pointing to page 16, line 9, from the bottom of that disclosure for what is regarded to be a representative compound. It has the following structure:



U.S. 4,508,905 Jurggren et al

This particular compound contains five methyl groups, one each at positions 5, 6 and 7 of the benzimidazol ring, two methyl groups on the 3 and 5 positions of the pyridine ring and, as with Jurggren et al discussed above, a methoxyethoxy group is at the 4 position of the pyridine ring. The examiner's only citation pertaining to the substituents on the 4 position of the pyridine ring is published European application 0198208, specifically at column 2, lines 23 and 24. Applicants have already dealt with this issue during the examination of the great-grandparent application which resulted in the issuance of a U.S. patent. Thus, the determination has already been made that in these compounds methoxypropoxy provides properties superior to related compounds. Moreover, there is no disclosure or suggestion in EP '208 of any significant differences in the substituents on the 4 position of pyridine ring. Applicants, of course, have determined otherwise.

For these reasons, it is respectfully submitted that the claims of this application define inventive subject matter.

SOUDA et al
Serial No. 08/354,726

Presentation of Additional Information and Data

Applicants have determined in collateral studies that the compounds of the present application possess antibiotic properties superior to those of the structurally related compounds. This subject matter is now before the USPTO in application Serial No. 08/379,214, filed January 27, 1995, and pending in art unit 1206. Attached are relevant portions of the specification of that application showing comparison of various compounds, many of which are pertinent to the prior art of the present application, with the compound of the present application, identified as (II). Please see pages 13-17 reporting the results of testing of compound II (see Table 1, page 16) with related compounds. The superior antibiotic activities of these compounds will be apparent.

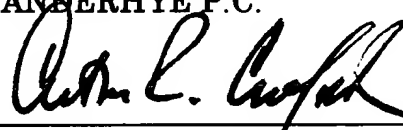
As this information is already contained in a pending U.S. application counsel believes that it does not need to be separately verified. Counsel will provide a suitable declaration if the examiner so requests.

For the above reasons, it is respectfully submitted that the claims of this application define inventive subject matter.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



Arthur R. Crawford
Reg. No. 25,327

ARC:pc
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100